LISTING OF THE CLAIMS

At the time of the Action:

Pending Claims: 1-29 and 35

Withdrawn Claims: None

Canceled Claims: 30-34

After this Response:

Pending Claims: 1-9, 15-22, 24-29 and 35

Amended Claims: 1, 16, 28-29 and 35

Withdrawn: None

Canceled Claims: 10-14, 23 and 30-34

New Claims: None

1. **(Currently Amended)** A system, comprising:

a server including at least one processor and at least one computer-readable storage medium, the computer-readable storage medium comprising:

a component that receives a subset of data corresponding to ~~the~~ a linear program;

a component that receives a user input for a selection of at least one of the subset of data to bias at least one edge utilized to resolve a graph representative of a network, the at least one of the subset of data associated with one or more of cost, length, bandwidth or latency; and

an analysis component that adapts linear programming optimization algorithms, based on separation oracle(s), to work with an approximate separation oracle and information related to the ~~at least one of the~~ selected subset of data to solve a primal and dual linear program within a same approximation factor as the approximate separation oracle.

2. **(Previously Presented)** The system of claim 1, wherein the analysis component resolves an optimization of the dual linear program to solve for an optimization of the primal linear program.

3. **(Previously Presented)** The system of claim 2, wherein the optimization of the dual linear program comprises an approximate range between R^* and αR^*; wherein further α is the approximation factor and R^* is a minimum value produced by a binary search of an equality function produced *via* an ellipsoid algorithm utilizing the approximate separation oracle.

4. **(Previously Presented)** The system of claim 3, wherein the optimization of the primal linear program comprises a value less than or equal to αR^*.

5. **(Previously Presented)** The system of claim 1, wherein the approximate separation oracle comprises an approximation algorithm for a minimum Steiner tree problem.

6. **(Previously Presented)** The system of claim 1, wherein the approximate separation oracle is utilized in conjunction with an ellipsoid method to obtain a resolution for the primal and dual linear programs.

7. **(Previously Presented)** The system of claim 6, wherein the resolution produces an approximation algorithm for a fractional Steiner tree packing problem.

8. **(Previously Presented)** The system of claim 1, wherein the analysis component utilizes primal and dual linear programs representative of a fractional Steiner tree packing problem.

9. **(Previously Presented)** The system of claim 1, wherein the primal linear program comprises a representation of an aspect of at least one computer network system.

10. **(Canceled)**

11. **(Canceled)**

12. **(Canceled)**

13. **(Canceled)**

14. **(Canceled)**

15. **(Previously Presented)** The system of claim 1, wherein the analysis component has an asymptotic approximation factor of about 1.59.

16. **(Currently Amended)** A computer-implemented method[[,]] ~~implemented by one or more processors,~~ comprising:

employing a processor that executes instructions retained in a computer-readable media, the instructions when executed by the processor implement at least the following operations:

obtaining user input for a selection of at least one desired parameter data from a networked system to bias at least one edge of a graph representation of the networked system for utilization in determining an optimum distribution, the selected at least one desired parameter data ~~being pre-selected~~ associated with one or more of cost, length, bandwidth or latency;

receiving ~~a selection of~~ the selected at least one of the desired parameter data;

determining the optimum distribution utilizing an approximate separation oracle and the selected at least one of the desired parameter data in an ellipsoid method to solve primal and dual linear programs that represent a fractional Steiner tree packing problem.

17. **(Previously Presented)** The computer-implemented method of claim 16, further comprising:

obtaining the primal linear program for Steiner trees in the networked system;

determining the dual linear program based on the primal linear program, wherein a separation oracle of the dual linear program equates to a Steiner tree problem which is NP-hard to solve;

selecting a known approximation method for resolving a minimum weight Steiner tree problem;

utilizing the known approximation method as the approximate separation oracle in the ellipsoid method to provide a resolution to the dual linear program; and

employing the resolution of the dual linear program to provide a solution for the primal linear program to facilitate in finding an approximate maximum fractional packing of the Steiner trees in the networked system.

18. **(Previously Presented)** The computer-implemented method of claim 17, wherein the known approximation method comprising a polynomial time α - approximation algorithm for finding the minimum weight Steiner tree.

19. **(Previously Presented)** The computer-implemented method of claim 18, further comprising:

employing a binary search to find a smallest value of R for which the dual linear program is feasible; where R represents a solution to the ellipsoid method utilizing the approximate separation oracle;

solving the dual linear program such that R^* is a minimum feasible solution and αR^* is a maximum feasible solution; where α is a performance factor of the approximate separation oracle;

setting the solution for the primal linear program equal to ≤ αR^*; and

providing an approximated optimization solution for the maximum fractional packing of the Steiner trees based on the solution for the primal linear program.

20. **(Previously Presented)** The computer-implemented method of claim 16, wherein the approximate separation oracle having a performance ratio within approximately a 1.6 factor.

21. **(Previously Presented)** The computer-implemented method of claim 16, wherein the networked system comprises a computer network.

22. **(Previously Presented)** The computer-implemented method of claim 21, wherein the computer network comprises the Internet.

23. **(Canceled)**

24. **(Previously Presented)** The computer-implemented method of claim 16, further comprising:

utilizing the optimum distribution to efficiently transmit non-streaming data from a source node to a receiving node *via* the networked system.

25. **(Previously Presented)** The computer-implemented method of claim 16, wherein the optimum distribution incorporates a broadcast transmission by the source node.

26. **(Previously Presented)** The computer-implemented method of claim 16, wherein the optimum distribution incorporates a multicast transmission by the source node.

27. **(Previously Presented)** The computer-implemented method of claim 16, wherein the optimum distribution incorporates a unicast transmission by the source node.

28. **(Currently Amended)** A ~~computer-readable storage medium having computer-executable instructions, that, when executed, cause one or more processors to perform operations~~ method comprising:

employing a processor that executes instructions retained in a computer-memory, the instructions when executed by the processor implement at least the following operations:

approximating an algorithmic solution to a minimum weight Steiner tree problem with a known approximation method;

receiving a user selection of at least one parameter corresponding to the linear program to bias at least one edge of a graph representation of a network data route for data dissemination, the ~~selection~~ at least one parameter associated with one or more of cost, length, bandwidth or latency;

collecting data associated with the user selected at least one parameter, the data comprising a link capacity of [[a]] the network data route for data dissemination;

obtaining an approximate separation oracle for the algorithmic solution, the approximate separation oracle being the known approximation method and indicating whether a solution is feasible or not; and

utilizing the approximate separation oracle and the data associated with the user selected at least one parameter in an ellipsoid method to resolve primal and dual linear programs representative of a fractional Steiner packing tree problem to provide an optimal data dissemination for the network data route.

29. **(Currently Amended)** The ~~computer readable storage medium~~ method of claim 28, wherein the networked system comprises at least one computer network.

30. **(Canceled)**

31. **(Canceled)**

32. **(Canceled)**

33. **(Canceled)**

34. **(Canceled)**

35. **(Currently Amended)** The ~~computer readable storage medium~~ method of claim 29,

wherein the at least one parameter further comprises a bandwidth capacity of a plurality of links between a source node and one or more receiving nodes of the network,

wherein providing the optimal data dissemination for the network data route further comprises providing an optimal distribution path, based at least in part on the bandwidth capacity, for passing data from the source node to the one or more receiving nodes.